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## Structural and optical studies of tin iron chromium nano oxides

*Thursday, 11 July 2019 15:00 (2 hours)*

In the present study, we have synthesized  $\text{Sn}_{0.2}\text{Fe}_{0.9}\text{Cr}_{0.9}\text{O}_3$  nano oxides. Single phase corundum-like structure and nanophase structure of the as-synthesized sample were confirmed by X-ray diffraction (XRD) and by transmission electron microscope (TEM). The results show that the produced powders have grain size of approximately 32 nm. Using the result of the UV-Vis spectrometer, we were able to determine the energy band gaps of 3.1 and 5.2 eV, when nanoparticles diluted in iron standard and in deionised water respectively.

**Apply to be considered for a student award (Yes / No)?**

No

**Level for award (Hons, MSc, PhD, N/A)?**

N/A

**Primary author:** Dr KALENGAY, Didier Mbela (University of Namibia)

**Co-author:** Mr NSIO, Nzundu Tony (University of Namibia)

**Presenter:** Dr KALENGAY, Didier Mbela (University of Namibia)

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